A.3.7 Jovian System Data Analysis Program

1. Scope of Program

The objective of this Jovian System Data Analysis Program (JSDAP) is to enhance the scientific return from the Galileo Europa Mission (GEM) by broadening the scientific participation in the analysis and interpretation of the Galileo Orbiter data. This program will support scientific investigations that stress GEM data. However analysis of some primary Galileo mission data that is directly related to the GEM data may be incorporated in the proposal.

Proposals are solicited that involve refinement of specific data sets, and analysis and modeling to interpret the Galileo data to increase knowledge of the physical state and structure and the dynamic processes acting on the satellites, planetary atmosphere, or interior, rings and magnetosphere. Data from other sources may be combined with Galileo data to further the understanding of some aspect of the Jovian system. These data could come from other spacecraft, orbiting telescopes, or ground-based observations. The proposed existing data sets from other sources should be described and the manner in which they augment the Galileo data must be clearly specified. Funds from this program will not be authorized to obtain new observations or to support observing facilities.

2. Sources of Information and Data

In order that the JSDAP can be implemented in a timely manner, the NASA Planetary Data System (PDS) will make the Galileo data available to the science community via an on-line interface before the peer review process has been completed. These data sets may or may not be in PDS compliant format. In addition, some documentation, ancillary files and other supporting products may not be available. PDS will make available validated data sets that have been released and delivered to the PDS by the Galileo science teams. The levels of completion of on-line data sets are a function of data structure and calibration problems. Before submitting a proposal, an investigator is responsible for determining that necessary and sufficient data to allow completion of the proposed research have been acquired and are being validated. Proposers must identify relevant derived data products that will be generated within this program, and, on completion of their analysis, funded investigators must document and deposit these data sets in the PDS. This task should be included in the work plan of proposals involving data analysis.

The Galileo Web site is at URL <http://www.jpl.nasa.gov/galileo/>, which is located at the Jet Propulsion laboratory. The ‘related pages’ references various instrument Web pages, some with associated bibliographies of articles produced by the team. Additional assistance in understanding the scope of the imaging data that were obtained by the Orbiter is available at a site generated by the Solid State Imaging (SSI) team that is located at the U.S. Geological Survey through URL <http://pele.wr.usgs.gov/Galileo>. The basic descriptions of the Galileo Probe and Orbiter and the associated

instrumentation are available in *Space Science Reviews*, 60, Nos. 1-4 (1992). Initial probe results were published in *Science*, 272, 837-860 (1996), and preliminary orbiter results were reported in *Science*, 274, 309-464 (1996).

A master summary that specifies the current schedule for release of Galileo data to the PDS is available at <http://sdtss10.fltops.jpl.nasa.gov/archive/archive.html>. The PDS, a distributed system with the central node located at the Jet Propulsion Laboratory, has tasked individual discipline nodes to archive specific Galileo data sets. URL addresses of nodes pertinent to this NRA are listed below along with designated individuals to contact for assistance in locating and transferring data sets:

Central Node: http://pds.jpl.nasa.gov

Atmospheres Discipline Node (ATM): http://atmos.nmsu.edu
Lyle Huber: E-mail: lhuber@nmsu.edu; Telephone: (505) 646-1862

Imaging Node (IMAG): http://www-pdsimage.jpl.nasa.gov/pds
Sue Lavoie: E-mail: sue.lavoie@jpl.nasa.gov; Telephone: (818) 354-5677

Planetary Plasma Interactions Node (PPI) http://www.igpp.ucla.edu/ssc/pdsppi
Steve Joy: E-mail: sjoy@igpp.ucla.edu; Telephone: (310) 825-3506

Radio Science Node (RS) :
Richard Simpson: E-mail: rsimpson@magellan.stanford.edu;
Telephone: (415) 723-3525

3. Programmatic Information

The Galileo Europa Mission component of the Jupiter System Data Analysis is envisioned as a two-year program. It is anticipated that approximately $2.0M dollars per year will be available in Fiscal Years 2000 and 20001to cover the selection of 25 to 35 investigations having either a one or two-year period of performance. NOTE: Appendix C contains critical information necessary for the preparation and submission of proposals submitted in response to this NRA. In particular, Section C.5.3 contains detailed standards concerning the format, page limits, and contents of a proposal. The submission of a proposal not in compliance with these standards may complicate and/or hinder its efficient and complete evaluation. Therefore, deficiencies in format and/or omission of key information may result in a proposal being found unacceptable for evaluation, or if evaluated, being adversely affected during the evaluation process.

NOTE: Appendix C contains critical information necessary for the preparation and submission of proposals submitted in response to this NRA. In particular, Section C.5.3 contains detailed standards concerning the format, page limits, and contents of a proposal. The submission of a proposal not in compliance with these standards may complicate

and/or hinder its efficient and complete evaluation. Therefore, deficiencies in format and/or omission of key information may result in a proposal being found unacceptable for evaluation, or if evaluated, being adversely affected during the evaluation process.

The schedules for submission of the Notice of Intent and proposal are given in Table 1 of the cover letter of this NRA. The World Wide Web site for submitting both the NOI and the Cover Page/Proposal Summary (see Appendix C.5.3) is <http://cass.jsc.nasa.gov/panel/>. Proposers without access to the Web or who experience difficulty in using this site may contact The Lunar and Planetary Institute by E-mail at <panel@lpi.jsc.nasa.gov> or by phone at (281) 486-2137 for assistance. Hard copies of the proposals are to be delivered to:

ROSS-99 NASA Research Announcement
Jupiter System Data Analysis Program (JSDAP)
The Lunar and Planetary Institute
3600 Bay Area Boulevard
Houston, TX 77058
Phone number for commercial delivery: (281) 486-2189

For awards granted through this JSDAP program, two copies of the Progress Report for two-year grants should be submitted to the Discipline Scientist (see address below) 90 days before the anniversary date of the award to allow for processing of its annual funding allotment. This Progress Report must be limited to five single-spaced, typewritten pages and include a brief statement of planned work for the coming year, a report of progress during the previous year, publications generated by this research, a budget, and an estimate of the amount of previously awarded funds that remain available at the end of the award year. The five-page limit does not include a Cover Page, detailed budgetary information, or reprints.

For further information, contact the Discipline Scientist:

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Code SR
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